

### REMARKS/ARGUMENTS

Claims 1-37 were pending in the present application. The present response amends claims 1, 19, and 33, and adds new claim 38, leaving pending in the application claims 1-38. Reconsideration of the rejected claims and consideration of the newly presented claim is respectfully requested.

#### **I. Objection to the Drawings**

The drawings are objected to as being improperly numbered. In particular, in order to properly correspond to the description in the specification, Fig. 4 instead should be labeled as Fig. 2, Fig. 2 should be labeled as Fig. 3, and Fig. 3 should be labeled as Fig. 4. The mistakes were simple typographical errors that would be obvious in light of the specification. New Figures have been submitted to correct for these typographical errors. These changes are not substantive, and as such do not add new matter to the specification. The changes to the Figures are not intended to alter the scope of the invention and/or be interpreted as a limitation on the claimed invention. Applicants respectfully request that the rejection with respect to the drawings be withdrawn.

#### **II. Objection to the Specification**

The specification is objected to for improperly referring to "Figure 2" on page 5, line 11, instead of "Figure 3." This error is a simple typographical error, which would be obvious in light of the specification. A replacement paragraph has been provided to correct the typographical error. These changes are not substantive, and as such do not add new matter to the specification. The changes to the Figures are not intended to alter the scope of the invention and/or be interpreted as a limitation on the claimed invention. Applicants respectfully request that the objection to the specification be withdrawn.

#### **III. Rejection under 35 U.S.C. §102**

Claims 1, 4-14, 17 and 18 are rejected under 35 U.S.C. §102(b) as being anticipated by *Norton* (US 5,917,594). Applicants' claim 1, as amended, requires a broadband ellipsometer comprising an all-refractive focusing optical system for focusing the probe beam onto a spot on the surface of the sample. Such an all-refractive system is not disclosed by *Norton*.

*Norton* instead discloses a focusing optical system based primarily on a reflective spherical mirror (Abstract; Summary; col. 3, lines 41-45). *Norton* proposes “broadband spectroscopic measurement systems using a spherical mirror” (col. 3, lines 41-45), which utilizes refractive elements to correct “spherical aberration caused by off-axis reflection from the mirror” (col. 3, lines 45-60; col. 6, lines 52-59). *Norton* utilizes a reflective optical system for broadband applications because, according to *Norton*, “[w]hen the wavelength range is large, refractive optics exhibit too much chromatic aberration” (col. 1, lines 33-47). *Norton* therefore not only fails to disclose a purely refractive focusing optical system for broadband applications, but in fact teaches away from such a refractive optical system. As *Norton* fails to disclose the elements recited in claim 1, *Norton* cannot anticipate claim 1. Claims 4-14, 17 and 18 depend from claim 1 and therefore also are not anticipated. Applicants therefore respectfully request that the rejection with respect to claims 1, 4-14, 17 and 18 be withdrawn.

#### IV. Rejection under 35 U.S.C. §103

##### a. *Norton*

Claims 2-3, 19-28, 30, 31, and 33-35 are rejected under 35 U.S.C. §103(a) as being obvious over *Norton* (US 5,917,594). Independent claims 1, 19, and 33 require an all-refractive focusing optical system in a broadband ellipsometer for focusing the probe beam onto a spot on the surface of a sample. As discussed above, *Norton* not only fails to teach or suggest such a limitation, but in fact teaches away from such a limitation. As such, *Norton* cannot render independent claims 1, 19, or 33 obvious. Claims 2-3, 20-28, 30, 31, and 34-35 depend from these claims and also are not rendered obvious. Applicants therefore respectfully request that the rejection with respect to claims 2-3, 19-28, 30, 31, and 33-35 be withdrawn.

##### b. *Norton* in view of *Appius*

Claims 15, 32, and 37 are rejected under 35 U.S.C. §103(a) as being obvious over *Norton* (US 5,917,594) in view of *Appius* (DE 3635637). As discussed above, independent claims 1, 19, and 33 require an all-refractive focusing optical system in a broadband ellipsometer for focusing the probe beam onto a spot on the surface of a sample. As discussed above, *Norton* teaches away from such a limitation. *Appius* does not make up for the deficiency in *Norton*. *Appius* teaches a mount for a lens system (Abstract). *Appius* does not teach or suggest that an all-refractive focusing optical system can be used successfully to focus the probe beam onto a spot on the

surface of a sample in a broadband ellipsometer. As such, independent claims 1, 19, and 33 cannot be rendered obvious by *Norton* and *Appius*, either alone or in combination. Therefore, dependent claims 15, 32, and 37 also cannot be rendered obvious. Applicants therefore respectfully request that the rejection with respect to claims 15, 32, and 37 be withdrawn.

c. *Norton* in view of *Nagano*

Claims 16, 29, and 36 are rejected under 35 U.S.C. §103(a) as being obvious over *Norton* (US 5,917,594) in view of *Nagano* (US 5,798,876). As discussed above, independent claims 1, 19, and 33 require an all-refractive focusing optical system in a broadband ellipsometer for focusing the probe beam onto a spot on the surface of a sample. As discussed above, *Norton* teaches away from such a limitation. *Nagano* does not make up for the deficiency in *Norton*. *Nagano* teaches a lens barrel including a series of lenses each having “their centers accurately coinciding with the optical axis” (col. 27, lines 31-43). *Nagano* does not teach or suggest that an all-refractive focusing optical system can be used successfully to focus the probe beam onto a spot on the surface of a sample in a broadband ellipsometer. As such, independent claims 1, 19, and 33 cannot be rendered obvious by *Norton* and *Nagano*, either alone or in combination. Therefore, dependent claims 16, 29, and 36 also cannot be rendered obvious. Applicants therefore respectfully request that the rejection with respect to claims 16, 29, and 36 be withdrawn.

**V. Amendment to the Claims**

Unless otherwise specified, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter to the specification.

**IV. Newly Presented Claim**

Claim 38 has been added to cover different aspects of the present invention. This claim is supported by the specification and does not add new matter. Applicants therefore respectfully request consideration of newly presented claim 38.

**IV. Conclusion**

In view of the above, it is respectfully submitted that the application is now in condition for allowance. Reconsideration of the pending claims and a notice of allowance is respectfully requested.

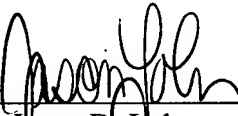
The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50-1703, under Order No. TWI-12410. **A duplicate copy of the transmittal cover sheet attached to this Response to Office Action Mailed September 25, 2003, is provided herewith.**

Respectfully submitted,

STALLMAN & POLLOCK LLP

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By: \_\_\_\_\_

  
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